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A STUDY OF THE ROUTE OF CABEZA DE VACA.

JAMES NEWTON BASKETT.

II.

4. *From the Iron Region to the River of Permanent Houses.*

Let us go back now and compare the narratives on the hypothesis that the route ran almost directly westward from the iron region to the Rio Grande, as is the more probable, since Cabeza's party say as much to the last Indians encountered before they reached the Rio Grande: "We told these people that our route was toward sunset."¹ So it was, then, thirty leagues out from the Rio Grande, but what it had been before this is not directly asserted, though no change is mentioned after their turning west into the mountains toward the "beautiful river."

Immediately after the mention of the tribe on the beautiful river, near Cabeza's iron region, Oviedo says² they reached a great people of 2,000 souls, in five groups of *ranchos*, who killed hares, deer, etc., "on the way." These are the same people with whom Cabeza passes through or along the valleys, after he had "traveled among so many different tribes and languages that nobody's memory can recall them all."³ Oviedo does not note how far it was to this new people, but simply says these went on with the white men, and never left them. In these *ranchos*, says Oviedo, they gave the Spaniards an abundant supply of piñons "where the trees are full throughout those *sierras*⁴ in great quantity." Cabeza implies⁵ that it was in the country of the beautiful river that the "small trees of the sweet pine" grew. Hereby hangs a little matter worth looking into: after leaving

¹Cabeza, 146.²P. 606.³Cabeza, 142.⁴In THE QUARTERLY for January, 1898, Ponton and McFarland quote the original of this passage with the word *serranias* here from Bandelier, where it is rendered "mountain ridges." In the Oviedo to which I have access, it is as above.⁵P. 140.

the beautiful river Oviedo has only two groups of people met with before reaching the river of permanent houses, and his last is evidently the last group of Cabeza, also; for both narratives have the women sent forward from these and note here other incidents in common. Cabeza has the group of people just back of this last meet the Spaniards immediately after crossing the first great river and traversing thirty leagues of plains. He says these were the first to whom those of the beautiful river took them, after passing the other unrecallable many. With him both these and the last were from "afar off." But Oviedo says that it was this first people "from afar" who gave them the first piñons, and among whom the trees grew so abundantly. This with him is evidently an intermediate people which he has not noted elsewhere, and corresponds to Cabeza's first people "from afar." Hence, if we trust the more detailed account of Oviedo, the piñons were a great way from the beautiful river—not at it—and they were across the first of Cabeza's big rivers; making, in any case, the Pecos the river.

It now becomes a matter of decision from the known facts whether the scant scattering of these nuts found north of the Pecos, on its banks, in Uvalde and Edwards county, or the abundant growth of them in the trans-Pecos region, shall constitute the abundant groves spoken of by these chroniclers. Believing as I do from Oviedo's statement that it was the latter, the passage of the Colorado River on this journey is cut out of consideration, and the Pecos, on the route directly west, thirty leagues beyond which they met the first piñon people, is the first stream encountered after leaving the region of the Llano River. Oviedo says¹ that the last Indians, which were "from afar off," and were met just before reaching the river of permanent houses, also gave them piñons. If after crossing the Trans-Pecos ranges, so arid and fruitless, they encountered a river, before reaching the Rio Grande, it must have been some mountain stream like Cienega Creek or Cibolo or Alamita Creek, at flood by recent rains. From there Cabeza says,² "The same Indians [his first that came from afar] led us to a plain beyond the chain of mountains," that is, to the second distant people, which latter were the same that led them finally to the permanent houses.

¹P. 607.

²P. 145.

If they went the hypothetical southern route it is probable that piñons may be found after the proper sequence of rivers, in Coahuila, and it is slightly significant that this route should pass so near to the piñon region of Edwards and Uvalde counties; but I can not feel that the trees here justify the abundance indicated in either narrative. The two accounts combined, taken in connection with the distribution of these trees at present, justify us in believing that the Spaniards found them as an abundant food supply west of the Pecos only, and that this stream was Cabeza's first "big river." This again cuts the Colorado out.

From this plain, where the last Indians led Cabeza, Oviedo has a less detailed journey to the great river beyond. Cabeza's more detailed account suggests about thirty leagues, though he is not clear. We need not dwell on this, since the identity of the river is the main thought here. We shall return to the details of the itinerary when we come to consider the time spent on this whole journey. In each narrative it seems to have been about three days' travel, and five leagues more, or about four days in all.

5. *From the River of Permanent Houses to the eastern edge of the Maize Region.*

The expressions in both accounts imply permanent houses on this next river, which Cabeza says¹ ran between, or among [*entre*] *sierras*. Oviedo² notes Castillo as finding "people and houses and *assiento*." Cabeza calls them, in the edition of 1555, "*casas de gente* [people] *y de assiento*" (which last Buckingham Smith renders "fixed dwellings of civilization"); and he says that "these were the first abodes we saw that were like unto real houses." He says³ that the houses seen previous to this were made at each camp by women carrying mats. Here were beans, gourds, or squashes,⁴ and a little maize, which this year at least these Indians had brought from far westward. When it was not too dry, they "sowed" corn here.

¹Pp. 149-150.

²P. 608.

³P. 143.

⁴Bandelier says (*Cabeza*, 150, note) that the word he translates "squashes" is *melones* in the "originals," but in the edition of 1555 it is "calabazas." Espejo notes *melones*, melons, however, in the Conchas valley just southwest of this, fifty years later; and Castañeda finds them north of Corazones four years after Cabeza passed.

When the Spaniards were on the plain thirty or more leagues east of the settlements of permanent houses, they sent two Indian women to these settlements, and they returned and said that the people of the settlements had gone north to kill cows,¹ and if the white men wanted to meet people they had better go north from there. Cabeza says² that they called these of the permanent homes the cow people, "because most of the cows [killed] die near there, and for more than fifty leagues up that stream [*rio*] they go to kill many of them." I do not know what clearer statement one should need than this, nor what better authority than Cabeza and Oviedo one could find of affairs then, though the statement in the latter is based on what the Indians told the Spaniards. Mr. Bandelier—perhaps because it conflicts with his idea of the route—has maintained that the bison never came into the Rio Grande valley, because no early Spanish expeditions note their being there. If there is any earlier expedition than this, I have not heard of it, and there could certainly be none that had better opportunities for observation. When going up this river from this point about ten days, or the required fifty leagues, Oviedo says that on the way the Indians said that many of their people had gone to hunt cows about three days away on a plain among *sierras*, which came from above toward the sea; and three days away from even the end of this fifty league stretch would not reach east of the Guadalupe mountains; thus, this plain can be practically identified.

Besides this, Judge Coopwood, in *THE QUARTERLY* for April, 1900, has thoroughly demolished this theory, about cows not coming south and west of the Pecos Valley, which so many others have adopted to the extent of maintaining with Bandelier that this cow river must, per consequence, be the Pecos. It is true that by going northerly from this region these lower Rio Grande Indians would easily reach the valley of the Pecos, where we know the bison was abundant in the fall; and up the Rio Grande might be construed still to mean into this other valley; yet there is no need to make the river of permanent houses any but the *Bravo del Norte*, which Espejo went up later. But we will pass this for a moment, by merely saying that it will appear further on that the Cabeza party

¹Oviedo, 607-608.

²P. 152.

struck the Rio Grande near the mouth of the Conchas, and went up the former only.¹

After reaching the permanent houses, Oviedo notes² that they had much people and little land to sow in; food was therefore scarce. Hence the travelers went on one day to four groups of pueblos. The denizens of these told them³ that onward there was nothing to eat till they should go "forward thirty or forty days' journey, which was beyond the region where the sun went down, toward the north"—a very significant statement, meaning that the place of maize was not at the end of a line drawn to the west, but north of the end of it—a statement which alone would put the location of the permanent houses even further south than the Conchas region, if it be eastward from Corazones (or the neighborhood of Ures, Sonora), where the maize was to be found; and to get this "seed" these Indians said that "they had to go along up that river toward the north other nine or ten days' journey to the crossing of the river, which from there they had to cross, [and] all the rest of the way they had to go west to where there was maize."

This shows pretty definitely that a large detour to the north was to be made. Oviedo adds⁴ that the Indians said that there was also corn toward the right hand, to the north, and lower through all that country—it should be to the coast, as afterward appeared—but that was very distant, and this other was the nearer, and the way was through their friends, who were of one language, etc.⁵ He also adds that these Rio Grande Indians said that they killed many cows near there. Then he says that the party went along up that river for nine days' journey, traveling from morn till night each day, but always they slept in houses with people in

¹I can not recall, nor have I time to investigate, the season of year that these later expeditions passed the Rio Grande valley. If in late spring or summer, the northward migrations of the herds might well make this region seem destitute of bisons. Cabeza was here now about the first of January.

²P. 608.

³Oviedo, 609.

⁴P. 609.

⁵After I had this in manuscript, it is a significant coincidence that I received a communication from Dr. W. J. McGee stating that he had become convinced, from ethnological data purely, that a northern route from the upper Rio Grande ran into the eastern edge of the Gila Valley and thence southward down the valley of the Sonora. At the time of writing, Dr. McGee did not recall the above statement of Oviedo. Hence the value of his conclusions. We shall see that the Cabeza party went the shorter route, as Dr. McGee suggests also, from ethnological data.

them. The herb that Cabeza calls *chacan*, Oviedo speaks of as *masarrones*, and he notes that they found on the way few people, the others having gone to eat cows three days' journey from there on a plain among mountains, which latter came from above toward the sea. Note that it does not follow that these people were the full nine days up, since he says that they found them on the way. "And thus they [the Spaniards] went along up that river fifteen days' journey without resting, . . . and they crossed from there to the west, and went more than other twenty [days' journey] to the maize" eating powdered herbs and hares, resting on this stage sometimes, as had been their custom, and coming at length to the first houses where they had maize, which was more than two hundred leagues from Culiacán.

This is Oviedo's interesting and helpful story of this great stage of this journey which we may examine further hereafter.

From the second group of permanent houses on the Rio Grande Cabeza says that they went seventeen days up the river before crossing, instead of the fifteen, which we may understand Oviedo to include as his whole stage here. Cabeza has the same words for "along up that river." Just how Judge Coopwood can insist that there were more than one river here, or translate the expression "*aquel rio*" in the *Naufragios* of Cabeza as "that other river,"¹ since there is no *otro* in either Cabeza or Oviedo when speaking of the stream here, I can not see. His rendering is in no sense justified by lexicon or location.

But Cabeza mentions another route, from near the mouth of the Conchas, which the Indians here suggested to him as being the better. He had asked them "to tell us how to go." "They said we should travel up the river toward the north." Literally they said "the way was along up that river toward the north . . . but that . . . it seemed to them that we ought not to take that road [*camino*]."² Cabeza does not record the Indians as giving any reason for this suggestion; but they had just told him that he would find nothing to eat directly up the river but *chacan*, an abominable food, and in Cabeza's further statement we can see that they had advised him to go out from the river, to the right and to the more direct north, where he would pass through the cow country,

¹THE QUARTERLY, III., 192.

²Cf. *Naufragios*, ed. 1555, fol. xliiii.

and have plenty to eat. Consequently he says: "In doubt as to what should be done, and which was the best and most advantageous road to take, we remained with them for two days [deciding] . . . [after which] we determined to go [directly] in search of maize [not meat] and not to follow the road to the cows, . . . which meant a very great circuit [for us] as we held it always certain that by going toward sunset we should reach the goal of our wishes."¹

Mr. Bandelier has a foot note at this point in his wife's translation, in which he hints that they were now at the mouth of the Pecos; that this cow route was up that stream, and the one more westward was up the zigzag of the Rio Grande just beyond. Ponton and McFarland have disposed of the possibility for anything but a bird to go over this last way, and the conditions of the narratives do not justify it, if we had never seen Espejo. So taking deer fat against the *chacan* up the river, Cabeza says, "we went our way . . . to the South Sea . . . the first seventeen days of travel . . . along the river . . . which we [then] crossed and marched for seventeen more."

This was directly up the river, and not by the way of the cows. Up this river the Indians had said "we should travel . . . toward the north . . . for seventeen days."² Since the Rio Grande flows along here almost southeast, going up it is going both north and west. The other route, which is not mentioned as being up any river at all, would have carried them "to the north," too much, or too directly north; but the sunset route lay immediately up stream—especially here in midwinter.

After crossing the Rio Grande at the end of the first seventeen days, Cabeza has other seventeen toward sunset. The maize region according to Cabeza was found at the end of this second seventeen days, while Oviedo has it more than twenty from the river.³ When they reach the maize region the former notes here houses "*de assiento*—with foundation—many of which were made of earth and cane; and both he and Oviedo are confirmed in their descriptions of the people and houses all along here by the Coronado chron-

¹Cabeza, 154.

²Cabeza, 153.

³Oviedo says they rested on this journey. Possibly Cabeza gives the days of actual travel only.

iclers, who passed this same way, quite probably, about four years later.

Buckingham Smith first called attention to the importance of Espejo's journey in connection with that of Cabeza, in a note to his second edition of his translation of the *Naufragios*;¹ but it seems to have escaped the notice of many later students, or else not to have impressed them. We shall see that it was in the winter of 1535 that Cabeza passed the houses on the "river that ran between *sierras*," and it was about fifty years later that Espejo came by the same region.² He was going with an expedition, from Mexico to the tall pueblos near Santa Fé, on the upper Rio Grande, and he did not go by the route through Sonora and Arizona, up the coast, which Coronado and the earlier missionaries had gone, but he cut across by a nearer way to the valley of the great river. Later we know that this route was established down the Conchas valley; and, though Espejo does not say that he came down this stream, he describes the Conchas Indians which are known to have lived on that river, and he found another stream, which when he gets further up it, he calls the rio del Norte. Where he first struck this river, he found a tribe of Indians called *Patarabueyes*, or *Jumanos*, of whom he says "they have . . . fish of many kinds from two swelling rivers"; and it is one of these he describes as the "del Norte," because of its coming directly from the north.³ Traveling up this river, he found the banks peopled with Indians of the same nation for the space of twelve days' journey. They seemed to know something of the Christian religion; and they told Espejo's men that three Christians and a negro had passed through there, which by the signs the Indians made the Spaniards thought must have been Cabeza and his companions. Espejo states that he went on up "the said river" and passed for twenty-two leagues through another nation (about eighty-two leagues in all) whose name he did not learn. Next to this was another province, still "up the said river," which had fish from certain great lakes near.⁴ Here a Conchas Indian told him that fifteen days from there was a very

¹Pp. 162, 163.

²Pacheco y Cárdenas, *Documentos Inéditos*, XV, 100-126. Cf. Hakluyt, *Voyages of the English Nation to America* (Goldsmid ed.), III, 84-115.

³The translation in Hakluyt of the Ruyz narrative says, "whereof one is as great as Guadalquivir, which falleth into the North Sea or Bay of Mexico."

⁴Cabeza evidently did not go on to these.

broad lake, with towns and houses four stories high. No one will fail to recognize the pueblos at the Great Salinas in these. Eventually he reaches the Pueblo region and makes the statement that he had always traveled up the said river called rio del Norte.

What could be more definite than this? For the school children know that *Rio del Norte* and Rio Grande are two names for the same river; and this places Judge Coopwood's claim for an around-the-coast route to Jalisco out of consideration. Espejo's rate along here was about five leagues per day, and his twelve days of travel past towns, through which Cabeza had passed, would amount to sixty leagues northwestward beyond the valley of the Conchas; hence Mr. Bandelier's crossing of the Rio Grande at the mouth of that river is equally preposterous, as has been shown from the narratives themselves.

Since Oviedo represents the Cabeza party as going as rapidly as they could up the Rio Grande, but always sleeping in houses, the extent of their travel through an inhabited space here was greater than that of Espejo. Seventeen days, or even Oviedo's fifteen, would pass about one hundred and twenty leagues, if they went at the rate of seven and a half leagues per day. On the basis of Espejo's rate and Cabeza's days there should be eighty-five leagues of travel. So that they could not possibly have struck the Rio Grande any lower than Espejo did, unless the situation of the towns had changed or their extent diminished in the fifty years. The inference from Espejo is against both hypotheses, though we know that only a little later, stirred up by missionary ministrations, some of these people did move, and later still all abandoned their permanent form of building. There is enough in this to hold the route well to the south, and to destroy any theory that these men passed from the edge of the Llano Estacado to the Rio Grande above El Paso, as has been maintained by some, because one Coronado chronicler says that this route and that of Coronado had a point in common. We shall see later that this is not confirmed by another of these chroniclers, and is generally improbable. In like manner Espejo's narrative precludes all routes that do not pass at least fifteen days' travel up the Rio Grande above the Conchas Valley.

6. *From the eastern edge of the Maize Region to Corazones.*

Cabeza and Oviedo differ concerning the extent of country through which they found maize and permanent houses before they reached the village which they called Corazones, or Hearts. The first says "from here we traveled more than a hundred leagues, always meeting permanent houses and a great stock of maize and beans, . . . and they finally gave us all they had; and Dorantes they presented with five emeralds, shaped as arrow points," etc. Later he says¹ that "In the village where they had given us the emeralds, they also gave Dorantes over six hundred hearts of deer. . . . For this reason we gave to their settlement the name of 'village of the hearts' [Corazones]." Oviedo mentions the incident of the deer hearts, and the name of the town. This "finally" of Cabeza indicates that his hundred leagues ends at Corazones, and Oviedo implies the same of his eighty leagues, which he says they went from the first maize to a "*Villa de los Corazones*," and he describes it as consisting of three pueblos small and joined together, at which place they first emerged from the mountains. He gives details of this eighty-league journey²—saying that "every two or three days they reached villages, and rested a day or two in each." He adds that they reached the three pueblos of Corazones consisting of about twenty houses, just after they had passed the *sierras*, and in another place he says that great crowds followed them, till they went out on the plain near the coast"; and when they reached there, there had been eight months that they had not gone out of the *sierras*." In another place he implies with certainty, that the place which he regarded as the entrance into the *sierras* was where they first saw the copper rattle (*cascabel*) just before reaching the village on the "beautiful river" in Texas, from which, according to Cabeza, they went over the mountain with iron slag for stones. This fixes definitely the time from there to Corazones, since Oviedo elsewhere mentions this whole journey as extending over ten months. But we may see later, when we come to consider the itinerary as a whole, that Oviedo has a month too much in this interval, else he has erred in the time of starting.

Without sufficient facts to demonstrate it, I believe that Cabeza's

¹Pp. 156-160.

²Pp. 610-611.

party came to Corazones (which the Coronado narrators locate near the valley of the Sonora river, not far from the head of the cañon in the neighborhood of Ures) down the Sonora river from the north. The hints of it are, first, according to Oviedo, what the Indians said about their seed coming from a region that was north of a due west line from where the white men had struck the Rio Grande; second, because Coronado's men, going up this stream, found the same conditions (extending even over into the San Pedro valley), as the Cabeza party found; third, because we know that then the country directly east of Ures was very rough and broken, and perhaps not provided with food and houses, and these men note no rough country along here; fourth, because Cabeza is especially careful about mentioning the rivers he crossed while he was in the strange parts of the land, and he does not note anything of the Yaqui along here, east of Corazones, which, by its peculiar loop, would cut any route running into Corazones directly, from the east, twice—and he, therefore, probably passed north of it; fifth, because Cabeza says¹ that he believes that, "near the coast, in a line [*via*] with the villages which we passed, there are more than a thousand leagues of inhabited land," and since this country must be beyond these villages, it could not lie in Cabeza's mind in any other direction than parallel with the coast, and hence the villages, also, to be in the way, must lie in a similar line; sixth, because the seventeen days up the Rio Grande would require them to bear considerably southward to reach Ures; seventh, because they note no change of direction at Corazones, as would occur if they had come to it from the east.

Against this view is the fact that no change of direction is noted after turning west at the Rio Grande crossing, and also that they left the sierras at Corazones; but as to this last there are statements in the Coronado narrators, that imply that the phrase, "toward the mountains," may mean here "toward the north," since Castañeda says that Arispe was one of the villages which he knew, "toward the mountains." This stands today where it was in Cabeza's time—at the head of the Sonora valley northward from Corazones. Likewise Jaramillo notes that this Sonora valley had mountains on each side (as is well known now) which then were

¹P. 160.

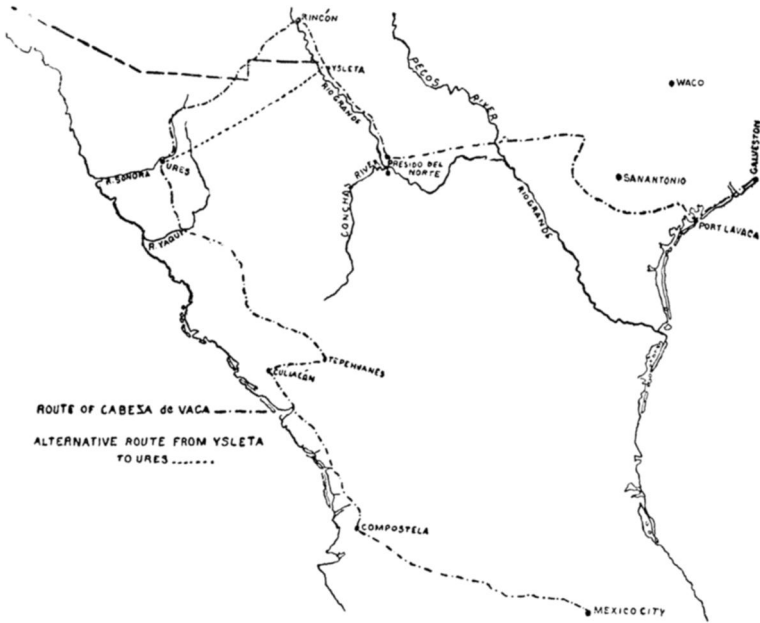
"not very fertile"; but all agree that the immediate Sonora valley was rich and well stocked with food. In fact Melchior Diaz says that it was the only region of any account from Culiacán to the Gila river, when he went over it about three years after Cabeza passed. Further on towards Culiacán, the Indians told Cabeza that he had come from sunrise, and the enslaving Christians of Guzman had come from sunset; but this was an error, since the general line of meeting of these two parties was a north and south one, the first coming from Corazones and the second from Culiacán. I have massed this all that the reader may draw his own conclusions. I have drawn my route down the Sonora valley, because the early records show no other route as practicable in this region. Mr. Bandelier has stated that a route running northward just east of the very bed of the Sonora river was impossible in that day.¹

7. From Corazones to the City of Mexico.

From Corazones, which, according to Oviedo, was on a plain, he says they went directly to the Yaqui, where they waited fifteen days, because the river was too high from rains for them to cross. Cabeza says they waited on account of the flood (one day) at a village half way to the Yaqui. Oviedo rightly says it was thirty leagues to the stream. Cabeza says it was twelve leagues from the second village. At any rate, here they found signs of what proved to be Guzman's men, and in a hundred leagues more they overtook them, after the flood subsided. After this they zigzagged among mountains, and finally reached Culiacán, to which they were taken by the men of Alcaraz under a certain Cebreros, and where they say they were received by Melchior Diaz as mayor. Here Cabeza says they remained till after the fifteenth of May. In another place he says that they were at this place (at least) fifteen days. This would place the arrival there about the first of May, 1536. Thence they went down the coast to Compostela, where they took Guzman to task for allowing the Indians to be enslaved; and they reached Mexico the day before the vespers of St. James, which date Tello says was the 22d of July. Here the viceroy, Mendoza, and Cortés, the marquis and conqueror, who was there then, received

¹In favor of this are Dr. McGee's conclusions from his study of the *Pima* Indians. This study he has not published yet, but the old routes of travel and migration of these Indians he has kindly outlined to me.

them; and a bull fight and tournament was gotten up in honor of their arrival.



Map of Route of Cabeza de Vaca from Mal-Hado to City of Mexico.

8. *Afterthoughts of the discussion.*

Incidental to this running discussion there have been side thoughts which I have deemed best to pass over till the main presentation was completed. We may glance at some of these now.

(1) *Coronado and De Soto*.—Students have differed greatly in their estimates given to Castañeda's statement that Cabeza had passed through the place where the army of Coronado rested on the plains, somewhere out east and south of the present town of Pecos, New Mexico. For a long time, it was thought that this camp was well up the valley of the Canadian and that Coronado passed no further south than the 35th parallel; but Mr. F. W. Hodge, in Brower's *Harahey*, has shown conclusively, from the mere topography, that this expedition came well southward over the *Llano Estacado* to its southern edge at least, and the present writer, by discovering an inadvertent omission in Mr. Winship's

translation,¹ confirms this from the narratives purely. Further study of this route has convinced me that the army proper never crossed the Canadian, or at least left for only the briefest time the gypsum stretches of the *Llano Estacado*, because it was never able to wear a trail; and that off the eastern edge of that great hard plain, between the forks of the Brazos, in, say, the region of Crosby and Garza Counties, it camped in the ravines. That these men could not have been further south is shown by the fact that after deducting from the time it took them to go back to their camp on the Rio Grande the number of days which it took them to come out from that stream to the crossing of the Pecos, and subtracting also that which it would require for them to go from the point where they struck the Pecos on their return (somewhere in the neighborhood of Fort Sumner) up to the bridge, there are left only eleven or twelve days for them to go from the camp on the plains to the Pecos Valley, on the short cut home. If Cabeza passed through this camp he was somewhere in the sweep of these dozen days' travel southeastward from Fort Sumner.

While, from Oviedo, it may be inferred that there was no possibility of the Cabeza party's reaching this far north, we have Jaramillo's statement that, as Coronado's men approached this camp, and were only one day west of it, an old blind *Teya* Indian told them that he had seen men like them many days before, but that it was further over toward Mexico—a statement as worthy of credence as that of Castañeda, that they actually passed through the location of this camp, and much more in keeping with the probabilities. While Cabeza may have had time to wander this far, during the days he spent between the Iron Region and the Rio Grande, there is not a thing in his itinerary that hints it, and his omissions significantly are against this view. That he nowhere mentions wigwams of skin, but always houses of mats; that he notes no tent poles drawn by dogs, nor, before reaching the Trans-Pecos region, finds nor hears of any people who live solely by following the bison

¹In the text of the translation it is said that the Spaniards crossed a river which ran "down toward" Cicuye (the present village of Pecos), but in the original it is "down from toward" (*de hacia*—the *de* being overlooked by the translator) Cicuye. The omission had long misled students, and, strange to say, the rendering of Ternaux-Campans was too indefinite to correct the error. This puts Coronado's route much further south than it has usually been located, a theory which Mr. Winship, following Hodge, has adopted in his latest book on the subject.

herds, but only such as exist on the smaller game, is sufficient to show that he never came upon the *Teyas* when they were on their northern journey after the bison, with their women and dogs hitched tandem to tent poles.

There is a striking parallelism in one item between the experience of Cabeza on the Rio Grande and that of Coronado's men further north. It will be recalled that at the first approach to the permanent houses, Cabeza notes that they found that the natives had piled all their goods in the middle of the floor, and were sitting with their faces to the wall—the most abject plea for mercy that a savage could present. As usual, we may presume with Castañeda, that Cabeza blessed their goods and allayed their fear. Such was his habit. Here doubtless were some *Teyas*—quite likely this old man whom Jaramillo met, left at home this year, while the younger men had gone to hunt up north. The later missionary records show an intimate relation between the *Teyas* and the *Jumanos* of the lower Rio Grande.¹ So, when these same Indians, having come north to hunt bisons, saw similar white men (Coronado's men) away up on the edge of the Staked Plains they thought of Cabeza's piety, and, as Castañeda states, brought out their goods to be blessed as before, and had them looted only. The incidents were of the same character on the Rio Grande and on the Llano Estacado—a habit noted at no other point in all the journeys of the two expeditions. The conclusion is obvious: the journey of the *Teyas* was between the two routes.

It will be recalled that, after the death of De Soto, at the mouth of Red River,² Moscoso went west and southwest with the army for about one hundred and fifty leagues. After passing through a stretch of timber, so peculiarly and regularly open that the narrators mention it—quite evidently the eastern Cross Timbers—they began to see rising ground. All along they saw huts similar to those described by the Cabeza accounts, and beyond still they heard of a river, where the Indians said they went to drive deer;³ and the Spaniards, having found none just east of this went on there and found both venison and bison meat; though, they say, they saw not this latter animal alive. Having crossed

¹See note by F. W. Hodge, *Land of Sunshine*, January, 1901, p. 51.

²There is no longer any doubt of this location.

³Antelopes?

and gone beyond and up this new river—the *Daycao*, which was in all probability the Colorado—they saw to the west a series of mountains and forests, but with no inhabitants. Beyond this valley they sent three scouting parties, in different directions, and the country grew more and more sterile and thinly populated, till finally there were no houses. Then, according to the Gentleman of Elvas, Moscoso recalled that Cabeza had told the emperor¹ of such a country, and he thought he must certainly have struck it, since he had invariably come toward the west; for though, he reasoned, they were marching “far inland” and Cabeza had always traveled along the coast, yet the latter had “told the emperor” that “he had gone about in a certain region for a long time, and marched north into the interior.”

This is certainly confirmation of the Cabeza narratives, but the main point here is that, since neither he nor Moscoso’s men saw the live bison in this region, and since the latter was not farther than thirty leagues beyond the Colorado (certainly in that region where it runs almost directly south), the former did not get any further west than the latter; for Biedma (who was of this party) notes that even before this the guides led Moscoso to where, “in seasons, some cows are wont to herd,” but the direction from the main route here is not given, and it was likely that it was off northward toward the valley of the Red; for the Inca has one of his informants say that on the other side of the country reached by the scouts, who went thirty leagues beyond the *Daycao*, was “a vast extent of level country where cattle fed in multitudes.”²

If Cabeza had reached even this, the accounts certainly would have mentioned it. Both he and Oviedo imply a mountainous country all the way of their going along here, as they swung around westward from the Iron Region, and hence they never got out of the hills of central Texas directly west or northwest. At the season of the year when both the expeditions were here—in the fall, for it is distinctly said that Moscoso turned back in October—we know that the bisons were in the habit of coming down as far as the New Mexico line; for Alvarado, who was with the Coronado

¹Who was it that said that De Soto knew nothing of Cabeza’s travels and was not influenced by them?

²One De Soto narrator particularly implies that they saw no skin huts, for he says the houses were miserable, “like those in the melon fields of Spain.”

expedition, came down the Pecos from about the 35th parallel, at this same time of autumn, and found bisons more and more abundant every day, and Coronado's army found them on the eastern slopes of the Llano Estacado in June; so that at any season then Cabeza could not have gone very far north or northwest without encountering the herds. But it is true that Cabeza's party had ample time along here for detours, since we shall see that between the beautiful river and the Rio Grande there were about five months spent—from near the 10th of August to the first of January, in which month Cabeza implies¹ that they reached the first permanent houses.

(2) *Natural History Features*.—When the writer began this study, he was hopeful of finding some geological, ethnological, or natural history features which might fix definitely certain points on the route. He sought and had the interested and kindly help of Instructor Alexander Deussen, of the department of geology, and Professors William L. Bray, of the department of botany, and Herbert E. Bolton of that of history—all of the University of Texas. The natural history departments of the Bureau of Agriculture at Washington were also drawn upon, as well as the members of the Washington Biological Society, including Dr. F. H. Knowlton and other distinguished students. But, except in a few instances, the result was disappointing. The eastern limits of the cacti, determined by Professor Bray, confirmed the location of *Mal-Hado*, well westward, but not further west than it is given in this paper, and their extent up the Colorado valley as well, makes the indicated route of the inland journey the more probable, and the poison tree in Sonora which Cabeza and the Coronado writers mention as so fearfully fatal was identified by Dr. Knowlton with the aid of Dr. J. N. Rose (and is, so far as I know, here first set forth) as the *Sebastiania palmeri*. This is of the order of Euphorbiaceae (the Spurge-worts), as Mr. Winship had hinted—a group of plants of varied form, all having a milky sap which is more or less poisonous. Croton oil of the pharmacies is the most virulent poison of those familiar to us, and the action of this arrow poison, as described by the Coronado chroniclers from their actual experience, was similar to that of this drug—though many times more

¹P. 166.

intense. It is probable that some septic poison was combined with it. The account of Cabeza is as follows:

They have a poison [in the valley of Sonora at Corazones] from a certain tree the size of an apple. For effect, no more is necessary than to pluck the fruit and moisten the arrow with it, or if there be no fruit, to break a twig and with the milk do the like. The tree is abundant and so deadly that if the leaves be bruised and steeped in some neighboring water, the deer and other animals drinking it soon burst.¹

Jaramillo, a chronicler of Coronado's expedition, says:

There was a poison here [at Corazones], the effect of which is, according to what was seen of it, the worst that could possibly be found; and from what we learned about it, it is the sap of a small tree, like the mastic tree, or lentisk, and grows in gravelly and sterile land.²

Another writer, in the *Rudo Ensayo*, describing the objects of natural history up the coast from Mexico, speaks of this plant and says that its milk is deadly and used as an arrow poison, and he adds that "it serves also, this same milk, for opening stubborn tumors, although I would not advise it, owing to its poisonous quality."³ This poison extended north well over into the valley of the San Pedro, and at "Suya" fifty leagues north of Corazones it nearly exterminated a garrison. The purpose of detailing this will be seen later.

All other attempts at determining the route by mere natural history features were failures. There were great canebrakes at *Mal-IIado*, but so there were all around the coast; the women there clothed themselves in a "wool that grew on trees," but the Spanish moss, or *tillandsia*, has no limit toward Pánuco; the *herba pedrera*, though Oviedo mentions a few more of its characteristics, could not be identified; the crawfish and oysters could be found at sundry points; nuts were everywhere, and the bitter and milky-juiced herbs were too abundant to mean anything, as were the *granillos*⁴ ground with the nuts at "that river"; the mesquite grew from anywhere west to a line eastward of Galveston, and had no defined limits;

¹Buckingham Smith's Translation (Ed. 1871), p. 172.

²Winship, "The Coronado Expedition," in Bureau of Ethnology, *Fourteenth Annual Report*, Part I, p. 585.

³See *Ibid.*, 538.

⁴*Naufragios*, (Ed. 1555), fol. xxiv.

maize meal was away out of place "up that river," since it was never known to be grown then west of the Brazos or east of the Rio Grande; the piñon was too scant on the hither or eastern side of the Pecos; while quails and hares could be found anywhere, and the gourds nowhere in central Texas, and the *chacan* (Cabeza) or *masserones* (Oviedo) up the Rio Grande and the other herb the powder of which was eaten on the high plains beyond were out of the realm of conjecture. Not a crumb of comfort could be found in the stones even, which Cabeza said he believed the *Mariames* would have eaten, had there been any in that country; for Mr. Deussen wrote me that there were practically none from New Orleans to Brownsville, on the coast, and especially along the coast under discussion. Only the iron region generally in the Llano River country or eastward was left me; and both accounts had distance enough to run far beyond that from any point north of the Rio Grande. Because the *Inca* had said that De Soto was buried in a coffin excavated out of a solid log of live oak (green and heavy that it might sink well) I had already determined that he died at the mouth of Red River, for this tree does not extend to the mouth of the Arkansas, and Brevoort, Bourne, and others are wrong; but I could find nothing on this route so exclusive and excluding, unless it be the already noted Sonora arrow poison. Even in this case Coopwood claims something as bad may be found on his gulf coast route.

Neither have I been able to find any ethnological aid. On the Coronado expedition, this is important. Even the flint hoes of the Quiviras, found in Kansas, limit the extent of his journey, for the Quiviras planted, and their neighbors eastward did not; but so far as the local student knows, there are no such tale-telling flints in Texas, else they have not been found and read yet. I have some hopes of this help still; but the tribes here were not so settled as those of Kansas, and they lived less by labor—and less even by the chase, since the bison was not always with them here as there. So I have had itinerary and topography only to depend on—and I have abided with them.

(3) *Discussion of the Routes Indicated by other Students.*—It may not be out of place, for the sake of completeness, to discuss briefly the main points in such papers as have already appeared in THE QUARTERLY.

The first is that of Ponton and McFarland in the issue of January, 1898. They seem to be the pioneers in locating the four rivers west of *Mal-Hado*, and it is strange that they did not locate, from Oviedo, the *ancones* beyond. The sand hills of the mouth of the Guadalupe led them astray, and it is remarkable that they have their river of nuts and the dunes and *ancón* so far apart as the Colorado for the one, the middle of Matagorda Bay for the other, and the head of San Antonio Bay for the third; whereas, according to their own interpretation of Oviedo, they should all be together, as one might wrongly infer from a casual reading.

Their demolishing of Mr. Bandelier's fancies concerning the substitution of cedars for piñons and his impossible location of the route up the zigzag of the Rio Grande is definitive, though they ignore the statements of Espejo; but they err as seriously in not carrying the route inland to the north, and in carrying it up the Pecos. There is no evidence that Cabeza went up any "big river" but one, and that was the Rio Grande. They very properly reject Bandelier's inland turn up the Brazos; but it should not be for the reason that the cactus is not found there (as it is not), but because the Spaniards went at least one hundred and forty leagues westward from *Mal-Hado* to where they saw mountains, before they made the northward start. In endorsing Bancroft's upper route from the plains near the *Llano Estacado*, they ignore the fifteen or seventeen days' trip up any river. They claim that the verity of the intersection of the route of these men with that of Coronado as noted by Castañeda, can not be ignored, but they seem to have overlooked the very much modified statement of Jaramillo. Their confidence in the limits of the bison eastward as defining the location of the first day, as set forth in Winsor's History, is scarcely well placed, since we know that in different seasons the stress of drouth and cold varied these limits greatly. With other students they seem to err in thinking that Cabeza notes a well-defined line here to which bisons came. He simply says¹ "All over this country there are a great many deer, fowl and other animals which I have before enumerated. Here also they come up with cows." Now this enumeration to which he refers took place when he was describing things away east of this on the coast of Florida proper. In this last connection he has just been telling of the habits of the

¹P. 94.

Mariames when they go to the tuna region thirty leagues west of the nut river, and the phrase, "this country" would seem to apply to that; so also his "here." There is no doubt, however, that bisons came later to Lavaca River. In noting the food and giving the customs of the people east of this first *ancón*, there is no mention of even a buffalo robe; and hence Cabeza had never gone to these cows in his trading ventures along the coast. They were, therefore, pretty well west of the great *ancón*, and count nothing in defining the location of this first *ancón* and river of nuts.

Judge O. W. Williams, in THE QUARTERLY for July, 1899, endorses the foregoing students in their location of *Mal-Hado* and subsequent coastal topography. According to Professor Bray, he errs in saying that more inland the tunas can not be found. Like Ponton and McFarland, he speaks of the bison range as definitely limited, and he seems to confuse the three times that Cabeza ate of their meat with Dorantes's three journeys as far west as the great *ancón*. Beyond this he is not definite; but his mention of a great limestone plateau west of Edwards County, full of game, is interesting, since the journey westward from the iron region went very probably over this section—either on the direct route, or on that hypothetical one through Coahuila. He makes a strong corroborative point in favor of the Presidio, or Conchas region on the Rio Grande, being the place of the first permanent houses, when he states that in this neighborhood corn has been planted from time immemorial in "*temporales*," that is, in sandy stretches near the river, . . . [where it] depends upon rain and subirrigation from the river to bring it to fruitage." This comports well with what Cabeza says about corn-growing there. The failure for the two years previous to Cabeza's coming had depended on drouth—possibly on one that had made the river-bed dry, and cut off the subirrigation; for we know from Castañeda, Humboldt, and others that there were places above this where the Rio Grande sank in the sand for miles during great drouths. Judge Williams is correct in saying that it would seem that it is these same corn-planters which Cabeza calls the "Cow nation." How anyone can read otherwise is hard to understand; but he immediately errs in giving credit to Bandelier's statement that this could not possibly be true. As already shown this old hydra has had all its necks amputated by Judge Coopwood, and by further statements of Cabeza

and Oviedo—as well as by a critical study of the narratives in connection with the migration of the herds and the topography. When we recall to what a great extent the bison has changed its range and habitat within the memory of this generation, we should be chary in making broad assertions about where its limits were in Cabeza's time, fifty years before we have any other account of the country. The persecution of certain hunter tribes would change the range then as later. There are notices of bisons passing in dry years to the Rio Grande valley above this from a general habitat much further east; and we know that this was an unusually dry time—even in the winter. It may be, however, that the cows were on the Pecos, as Williams suggests; but that Cabeza's "cow people" lived on the river that ran among mountains—the Rio Grande—is firmly established, if the narratives can be depended upon.

Judge Bethel Coopwood's long discussion of the route of Cabeza, in *THE QUARTERLY* for October, 1889, and January, April and July, 1900, is full of interest for its daring originality in so plausibly presenting such a bizarre scheme by means of what seems to have been a sincerely intense study. Whatever we may think of the probability of his theories, we must feel grateful to him for the amount of unique information that he has massed. The paper is too long to follow in detail. We may see that his first presumption of a far inland position, around Aransas Bay, for his four rivers; his making St. Joseph's Island his *Mal-Hado*, and his ignoring of the strictly coastal journey of these men, as they went beyond it; his continuance of the journey around the coast south (instead of westward with an almost right-angled turn inland, as indicated by the narratives and the De Soto chroniclers); his continuance of the journey then westward to Jalisco beyond the City of Mexico through a country whose inhabitants could have informed the travelers of the location of the city so practically near them—a country that had been invaded then by white men often—all these show how this student has allowed a preconceived idea to change directions, dwarf distances, and overlook plain statements generally. He also has split on the rock of ignoring Espejo—and much else.

He denies that Cabeza ever passed down through Culiacán, because this would be fatal to his proposed route. He does seem to show from records that Melchior Diaz could not have been mayor

there when this party passed in the spring of 1536. He quotes from Tello certain statements to show that it was not possible for the two captains, Cebreros and Alcaraz, to have been near the Yaqui in that year, under a certain other Captain Chirinos; but these are all his own deductions, whereas Tello says distinctly that Chirinos did bring these men from Petatlán River to Compostela, passing Culiacán, where Diaz was mayor. Tello's account is that Chirinos had sent Cebreros and Alcaraz forward to make discoveries. On this trip they heard that Cabeza's men were ahead at the Yaqui, "where they remained fifteen days crying over their long and painful journey, . . . and meeting Cebreros, he took them to where Alcaraz was, and they were taken by him to Captain Chirinos, by whom they were treated kindly, and who recognized them, because they had been his friends before the voyage to Florida."¹ Coopwood claims that all this and the account of Cabeza and the joint letter written at Mexico were fixed up by the viceroy, Mendoza, involving the reports about the cotton and gems and large houses for to the north, so that the authorities of the crown might empower him to make an expedition up that way, thus getting ahead of Guzman and Cortés, who were making similar attempts. There can be no doubt that "the good" Mendoza was a conscienceless schemer; but, on the face of it, it would seem that he would have had this joint letter made more definite and wonderful in its statements than either it, or the *Naufragios*, was, which latter was written in Spain, far away from the influence of the viceroy; for they are both very indefinite in their assertions, and each might have said that these men had seen actual wonders, if the object had been to instigate expeditions merely. From what we know of later expeditions, and the report which they obtained from Indian information—we find that the high houses, the turquoises, the feather trading and all that—are of a piece with that which Marcos, Diaz, and Coronado's men heard—and, subsequently, to a large extent verified.

As Judge Coopwood is a plausible advocate, it may not be out of the way to look further into the fallacy of his claims, with such side lights as are at hand. We have seen how the arrow poisons of Cabeza and Jaramillo coincide. What other men then had knowledge of this and all the details of this plant's growth and

¹THE QUARTERLY, III 251.

effects, so that a modern naturalist can determine the species from their description? It may be easily shown that Guzman's men knew nothing of it, and that it was not used by the tribes about the Yaqui which, the joint letter shows for the first time was the line of division between two civilizations. It was an Opati product, and the Opati tribe was then north of that river. Nowhere else yet has such a poison been recorded as used. Then, again, that these men saw here what they speak of is apparent from the evident sincerity of the narrative, and from the harmony of their descriptions of the houses, costumes, and customs of the women with those of the Coronado narrators. Oviedo's account¹ says that these permanent houses and the peculiar dress of the women prevailed then for a good three hundred leagues northward² from a river discovered by Nuño de Guzman (the Yaqui), and that from this river forward (toward Mexico) the houses were of petates and straw, with the women's skirts coming only half way down. These were the facts. The Petatlán River was named after the style of these houses.

Again, Mendoza writes the emperor, about 1536,³ after the coming of Cabeza, telling his Majesty of the journey of Marcos of Niza to the flat-roofed pueblos. He says in this that he had arranged with Dorantes to lead an expedition to these, but that the scheme fell through. However, he adds that he had left yet the negro (i. e., Steven) from him. He says that he supposed that Dorantes would be able to do his Majesty great service, in searching out the secrets of those parts. Why should he want these two for exploration, unless they had some experience up north, in the region of which he is evidently speaking? He adds that he had instructed Coronado to pass through Topira (Durango) and meet Marcos in the Valley of Corazones (and he gives its approximate distance from Culiacán); but that this commander had to return, on account of impenetrable mountains, to Culiacán, which was then the last province subdued by the Spaniards toward the north. He

¹P. 610.

²That is from the Gila River to the Yaqui, which shows that he passed near the Gila valley, else he could not have known of the great extent of the Pima stock and architecture.

³Hakluyt, *Voyages of the English Nation to America* (Goldsmid ed.), III, 63-66; Bandelier, *The Journey of Alvar Nuñez Cabeza de Vaca*, 197-202.

had, however, sent the negro as a guide for Marcos. Who else then could have known anything of Corazones, but some one of this Cabeza party, or those getting information from them? Lastly and definitely, Castañeda says that, on the journey of Marcos, "the Indians got along with the negro better [than with the friars], because they had seen him before, [and] this was the reason he was sent on ahead . . . to pacify the Indians." Further discussion is useless, and if this party did not pass Corazones on its way into Mexico, there is no use in trusting any statements concerning the journey—either of their own or those of others.

In opposition to the very far southern position of the route of Coopwood, and even that of Bandelier, it is nearly established that Cabeza crossed the Rio Grande just west of Rincón, New Mexico, where, since the mountains crowd into the river, they would "have to cross" [*avian de atravesar*], according to Oviedo.¹ Espejo, loitering, made five leagues per day on his journey along here. These men were hurrying, on account of hunger, going from morn till night. They made, doubtless, not less than six leagues, and seventeen days of this would be one hundred and two leagues, or two hundred and sixty-five miles along this stream upward. Lay this distance on any map, and note that it stretches from Presidio to Rincón. Note at this latter place that the river ceases to bear westward—that this is in all respects a place to leave it, to go westward. In view of this and what Espejo says, Mr. Bandelier's crossing at Presidio is out of the question, and there is no occasion for Judge Williams to get tangled up about there probably having been several crossings in this region.

I regret that space will not allow me to quote from Coopwood's citations concerning the bison in Mexico—the really valuable part of his discussion, for which students of these early Spanish expeditions should be grateful. He is correct also in showing up some of the inconsistencies of Cabeza's early itinerary, but his holding the poor traveler down to astronomical niceties, after he had been for eight years keeping the time by the moons only, is slightly finical and apparently of little import.

Oviedo here is no more trustworthy, and we shall see that Cabeza's time for starting from the *Avavares*, say the first of June—as indicated by his eight months spent with them from the first

¹P. 609.

of October—is as near right as Oviedo's first of August. Cabeza's hint of being on the Rio Grande in January comports well with the rest of the itinerary, and shows that Oviedo, too, is wrong a month. We shall consider that later.

Judge Coopwood has misunderstood Cabeza as having two distinct towns—a Culiacán and a San Miguel; and he says that the latter town was removed to the site of the former years before. In this he is correct; but he does not seem to note that Cabeza stopped out east of the village and did some baptizing at "a settlement of peaceable Indians." There Cebreros left him and went on "three leagues further to a place called Culiacán."¹ Diaz came out to where Cabeza was, and, seeing his influence among the savages, begged him to stay and do further missionary work among the Indians. Cabeza did so, and finally went into Culiacán, but this time he calls it San Miguel, as did others at that time. Mendoza, in the letter to the emperor above cited,² speaks of it at first as "Saint Michael [San Miguel] of Culiacan" and later as simply "Culiacan." It went by either name in the early Mexican chronicles. Hence Judge Coopwood's error here. He did not read closely. Mr. Dellenbaugh split on the same rock of not properly distinguishing and locating these towns, and had to be corrected by F. W. Hodge, in Brower's *Harahey*, in his discussion of the route of Coronado. This blunder in location carried the route proposed by the former into a watershed that Jaramillo says distinctly Coronado never entered. There is no error here on the part of Cabeza.

9. Tabulation of the Time and Distances of the Journey.

Perhaps a retabulation of such parts of the itinerary as we may be able to approximate may be rather convenient here near the end of the discussion—for easy reference.

From *Mal-Hado* to first *ancón*, Dorantes says 40 leagues; Cabeza implies 45 leagues.

To next *ancón*, Cabeza implies 15 leagues: Oviedo says 12 leagues.

To hither edge of tunas on coast, Cabeza says 30 leagues; Oviedo says 40 leagues to farther edge.

Thence to *Avavares*,³ 1 day (Oviedo), 7 leagues.

¹Cabeza, 175.

²P. 331.

³They delay here eight months—possibly nine.

To next Indians, 1 day.

Rest among *granillos*, 8 days.

To forest, 1 day, five leagues.

To fifty ranchos, 1 day.

Rest here, 5 or 6 days.

On past spring or little river to one like Guadalquiver and beyond (Cabeza), 1 day; (Oviedo) 8 or 9 leagues:

Extra days indicated by Cabeza to here, 2 days.

Rest two days here (at mesquite, Oviedo), 2 days.

To the sight of the sierras, 1 day.

On to river at foot of *punta*, 1 day, 5 leagues.

Another day shown by Cabeza.

Inland from river, according to Oviedo, 80 leagues; according to Cabeza, 4 days plus 50 leagues.

Over iron mountain or west to beautiful river, 1 day, 7 leagues.

A long indefinite stage to the five groups of settlements according to Oviedo; through many tribes and valley, according to Cabeza.

Beyond a big river (Cabeza), to a new people, 30 leagues.

Fifty leagues of arid mountains, across a big river and then over to some plains (Cabeza) to some more people from afar, which are Oviedo's second and only group before the permanent houses, 50 leagues.

One day following the women (Cabeza).

Three more journeys (Cabeza), 3 days (?).

Another day of $1\frac{1}{2}$ plus 6 leagues, 1 day, $7\frac{1}{2}$ leagues.

Next day to permanent houses, 1 day.

According to Oviedo, this stage was first three days and a part of another, and it was at the end of three days that Castillo returned. His part of a day corresponds with Cabeza's "next day." Four days and thirty leagues will cover this distance in both narratives, 4 days, 30 (?) leagues.

At the first houses on the Rio Grande, 1 day.

To the next, 1 day.

There at least, 2 days.

Up the stream on east bank, according to Cabeza, 17 days; according to Oviedo, 15 days, or possibly 24 days.

Across to first maize and fixed houses, 17 days; or, according to Oviedo, more than 20 days.

Through these to Corazones, according to Cabeza more than 100 leagues; or, according to Oviedo, 80 leagues.

Rest here (Cabeza), 3 days.

To another village where it rained (Cabeza), 1 day.

Tarry here, 15 days.

To the Yaqui (Cabeza), 12 days; the whole distance from Corazones to the Yaqui being put by Oviedo at 30 leagues.

Thence to Culiacán (Oviedo), 170 leagues.

In this connection may be noticed an interesting inconsistency. Oviedo says that he struck the first permanent houses with maize "more than two hundred leagues from Culiacán." Through the district where these houses were found he says that he traveled "more than eighty leagues," leaving an estimate of one hundred and twenty leagues from Corazones to Culiacán. His itinerary certainly gives thirty to the Yaqui, one hundred thence to the Indian village on the mountain top, and forty on to Culiacán. The consensus of the Coronado narrators gives the whole as one hundred and forty leagues, which it actually is in a direct line.

(4) *Conflict in the Two Accounts.*—Oviedo says¹ that when they reached Corazones they had been eight months in the mountains, and earlier he refers² to this whole journey as being of ten months' duration. Cabeza also speaks of it³ as a ten months' journey "after our rescue from captivity," as if he dated the end of it at Culiacán nearly two months later. When we compare the dates, and note the time intervals at each end of the journey we find that Oviedo's stage of eight months in the mountains shows a considerable error. It is the most serious difference that there is between the narratives. Oviedo, by his saying that when they reached Corazones they had spent eight months in the mountains, leaves only two months to go both from the *Avavares* to the mountains at the start and from Corazones to Culiacán, at the finish—if, as would seem to be the case, he means to treat the whole journey as ending at Culiacán. We shall see that Cabeza was likely correct in ending it there, since it accords with his hint that it was January when he reached the Rio Grande. Near the end of his narrative,⁴ Oviedo

¹P. 610.

²P. 604.

³P. 182.

⁴P. 610.

shows distinctly that his account regarded the Spaniards as entering the mountains just after (or at least not before), they ended their inland journey north in Texas, where they received the copper rattle. In like manner the mountain journey ends at Corazones. If they were two months going from Corazones to Culiacán, there would be no time left to go from the Avavares to the Iron Region. They were certainly little less than two months between Corazones and Culiacán. Oviedo accounts for thirty-three days on this stage, and "more than a hundred leagues" of travel besides, for which the time is not given. He says that below the Yaqui they ate bark and roots on this stretch for some time and were very weak. Hence their rate was not rapid. It is likely that they were at least twenty days going these one hundred leagues, and that the five to seven days of resting noted at the "peaceful village" just out of Culiacán were not all that were spent there. His summary makes the whole way one hundred and seventy leagues, mostly near the coast; but he shows that they passed to a point—on the high mountain—which was east of Culiacán forty leagues, and this implies that they went a longer route than the direct line. This makes 53 days in all—a close approximation to a similar estimate that may be made from Cabeza's account.

Cabeza says that he left Culiacán the 15th of May, and he notes another significant period; for he adds that fifteen days after he arrived there Alcaraz came in. Since he and this Alcade had had some such hot words out in the mountains, it is not very likely that Cabeza stayed longer, and he thus probably reached Culiacán about May the first. As they were at Corazones three days, according to our estimate, they would therefore have arrived at that village fifty-six days earlier, or, say, the fifth of March. Now let us see how long it probably took them to come to Corazones from where they first reached the Rio Grande. First, Cabeza's two seventeens and Oviedo's fifteen plus more than twenty amount to much the same—say, thirty-five days. The next stage is a matter of leagues—Cabeza's more than one hundred, and Oviedo's eighty. Let us say an average of ninety. To go this loiteringly, as Oviedo implies, would take fifteen days of actual travel. Since, according to Oviedo, the villages were, on an average, two and a half days apart, there would be five of these (Corazones' making the sixth); and, since also he says that they rested at each of these two or

three days, they would consume another twelve days in that manner. Hence here would be sixty-two days in all back of March the 5th, or it would have been January 2nd when they started up the Rio Grande. Three days before this date they struck the lower permanent houses. Cabeza was right. He was there in January, and four months of his ten lay yet to the westward of that place. His start from the *Avavares* was, therefore, six months back, or on the first of July. He and Oviedo are each wrong a month in the start, each wrong on a different side of the true date.

It may be seen that if Oviedo's account needs fifty-three days from Corazones to Culiacán, and eight months back from the former place to the Iron Region, there would be left only about five days to go from the *Avavares* to the "beautiful river." We have seen that about thirty-six were actually traveled—they were at least a month, anyway. This is the month that Oviedo's account is in error. As his time back from the first of January on the Rio Grande must be the same six months of Cabeza, we can easily see that he was only seven, instead of eight, months "in the mountains" (from the "beautiful river" to Corazones)—erring here also—and that he started from the *Avavares* the first of July instead of August.

(5) *The Time of the Tunas*.—If Cabeza went to the *Avavares*, the first time, at the middle of September, as he says¹ (since he notes that it was at the full of a moon that was new on the first), his subsequent wanderings with them to another tribe before they settled—perhaps a half month at least—and his later visit to the *Cultalchulches* and *Susolas*, some distance off, may have brought the first of November before they all went into permanent winter quarters. The *Susolas* were old acquaintances, whom he had met at the river of nuts, and he may have lingered among them awhile. Oviedo's phrase, "*por octubre*"—through October—is significant here, and, under the circumstances, is to be heeded before his other phrase for the time of wintering, "from October the first to August the first." It becomes the basis for Cabeza's eight months' stay. Eight months from the first of November would reach to the first of July, which accords well with the date deduced from considering Cabeza's dates at the other stages of the journey.

¹P. 96.

It must be recalled that Cabeza sets no date for the departure. He simply says that when he escaped the first time, and went to the *Avavares*, "it was late in the season, and the fruits of the tunas were giving out." If they had been abundant for fifty days back (the average of the duration of them, "forty to sixty" days given by Oviedo) they would have begun to ripen this year about the 25th of July. This would tend to confirm Oviedo's statement that they ripen about the first of August; and in this case they would still last six weeks, since Cabeza says they went to these neighbors of the *Avavares* to get more tunas. At the time of starting from here for the final journey the next year, Cabeza says that at the end of the eight months "the tunas began to ripen"; but there appears to have elapsed at least half a month wherein they went to the *Maliacones* and ate "a small fruit of some trees," and two dogs were eaten with the *Arbadaos* until the tunas were fully ripe. In fact, if we except the note of Oviedo about seeing some tunas that were green and some others that were beginning to ripen only a day after the start, there is no evidence from these narratives that they ate ripe tunas—or even heard of any—till they were two days beyond where they first saw mountains. This was about twenty-five days after the start—say July 25th, justifying Oviedo's ripening time and Cabeza's starting date. It is almost convincing local evidence of Oviedo's error, and confirms the first of July as the approximate period for the beginning of this great journey of ten months.

Based on this, the approximate dates for the more important points on the way would be as follows:

Start to the *Avavares*, September 15, 1534.

Start on journey next year, July 1, 1535.

At big river, like Guadalquiver (about), July 20, 1535.

First sight of mountains, July 23, 1535.

Cabeza's inland turn, July 27, 1535.

Over Cabeza's iron mountain, August 4, 1535.

Oviedo's entrance into *sierras* at fifty leagues from the inland turn (say eight days), August 5, 1535.

At the Rio Grande, December 27, 1535.

Crossing of the Rio Grande (about), January 14, 1536.

First maize and good houses in the West, February 6, 1536.

At Corazones, March 5, 1536.

Departure from Corazones, March 8, 1536.

At the Yaqui, March 12-27, 1536.

At Culiacán, May 1, 1536.

At Mexico [Tello], July 22,¹ 1536.

The foregoing study does not assume to be definitive, except in the location of *Mal-Hado* at the start, the region of the coastal journey, and that portion up the Rio Grande. In many respects it does not pretend to originality. It is merely intended to look over the ground somewhat thoroughly and present the case in a suggestive manner, in the hope that others, whose advantages may be greater, shall take up special local features and elucidate them. It is to be desired that this may occur, and that any errors of this paper may be eliminated.

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¹Cabeza's "the day before the vespers of St. James" (July 25th) would seem to place this date a day or so later.

It may add a slight interest in the sincerity of this study, if I confess that my investigations have frequently reversed strong impressions held by me before, and some time after, beginning this paper.